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while the rounded tuberculous condition is more obvious above. In two marginal plates, conspicuously tuberculated above, the lower surfaces are perfectly smooth. These probably pertain to a different species. None of the plates exhibit scute impressions, generally so evident in the emydes.

Anosteira ornata was almost the size of the palm or middle hand. A pygal plate measures about eleven lines in length and breadth; and its height or thickness in front is seven lines. Another plate from a younger animal measures about seven lines long, eight broad, and four lines thick in front.

HYBEMYS ARENARIUS.—The second turtle, almost as large as our common *Emys picta*, is founded on two specimens obtained by Prof. Hayden from a tertiary formation on Little Sandy Creek. They consist of a marginal plate and the portion of a costal plate. The bones are proportionately thicker than in our common emydes, but like them are smooth and deeply impressed by the scutes.

The marginal plate appears to be the ninth of the series. From the groove of the costal scute impression it is directed quite as abruptly outwardly as in any recent emys. Its peculiarity, upon which I have founded the genus, is a striking character. The surfaces, separated by the groove of the marginal scute impressions, present each a half circular boss at the fore and aft borders of the bone. Thus from this specimen we may infer that the margin of the carapace was ornamented with a series of hemispherical bosses, each of which was situated in the position of, and divided by the sutures of the marginal plates. The breadth of the specimen fore and aft and transversely is half an inch.

APRIL 25.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-nine members present.

The resolution to amend Art. 2, Chapter XI., of the By-Laws by the addition of the following words: "If there is no quorum at these meetings then the election may be held at the subsequent meetings," having been approved at two preceding meetings for business, was finally adopted.

The deaths of Mr. Benjamin Marshall and Prof. Charles M. Wetherill were announced.

The following gentlemen were elected members: H. Crawford Coates and B. F. Quimby.

Professor Marsh, of Yale College, made a communication on some new reptiles and fishes from the Cretaceous and Tertiary formations. Nearly all the specimens described were discovered by the Yale College scientific party during their explorations in the Rocky Mountain region last summer.

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Among the specimens from the Cretaceous exhibited were portions of a skeleton with the caudal series complete of a new species of *Clidastes*, about the size of *Clidastes propython*. The anterior caudals were elevated, and the diapophyses extended back to about the twenty-fourth vertebra with chevrons. The tail was extremely attenuated, as there are in the series eighty-one vertebrae with chevrons, the terminal ones being less than one-twelfth of an inch in diameter. The muzzle in this species is less pointed than in *C. propython*. The remains were found in the Cretaceous of Kansas, and the species was named *Clidastes Wymani*.

A second and very diminutive species of the same genus was represented by portions of the skull and teeth, with the quadrates, and several cervical vertebrae. The species was considerably smaller than *C. propython*, and differed essentially from that species in several respects, especially in the quadrate, which had the postero-superior process terminated by a short compressed hook. The teeth were smooth and nearly round at the base. This species, which was also from the Gray Shale of Kansas, is the smallest known mosasauroid, and was hence named *Clidastes pumilus*. Another new Cretaceous reptile was indicated by two teeth, which were found together in the middle marl bed at Birmingham, New Jersey. They apparently belonged to a Crocodilian, probably allied to *Hyposaurus*. One of the teeth, apparently from the anterior part of the jaw, is long, pointed, nearly round, and covered with strong angular but smooth ridges, except just at the apex, where they disappear. The posterior cutting edge is sharp and prominent, and extends the entire length of the crown. The anterior edge is only distinct a short distance near the apex. The second tooth has the crown short and compressed, with irregular ridges, and resembles somewhat the posterior teeth of *Hyposaurus*. These specimens indicate a species considerably larger than *H. Rogersii*, which, until its generic characters are more fully determined, may be called *Hyposaurus ferox*.

Among the other reptilian remains exhibited by Professor Marsh were several new species of Crocodilians from the Tertiary of Wyoming. One of these, which was named *Crocodylus ziphodon*, was remarkable in having smooth compressed teeth, with serrated edges, resembling the teeth of some of the carnivorous Dinosaurs. This animal, which was of moderate size, appears to have been covered with articular scutes. The quadrate was subtriangular in transverse outline at its distal end. Another small species, also with articulated scutes, was indicated by the more important parts of the skeleton. It had very slender jaws, and smooth, nearly round teeth. The quadrate was unusually flat at its distal end, and had a broad longitudinal elevation on its lower surface. The hypophysis was simple, elongate, and compressed. The species was named *Crocodylus lodon*. A third new species was apparently indicated by a nearly complete skeleton, and parts of several

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others. It had slender jaws, a short symphysis, and rugose, striated teeth, somewhat compressed. The quadrate was constricted at its distal end, and had a sharp longitudinal ridge on its lower surface. For this species the name of *Crocodylus Grinnelli* was proposed.

The remaining reptilian fossils described by Professor Marsh were also from the Tertiary of Wyoming, and indicated several species of *Lacertilia*, some of them of large size. They belong to a new and peculiar genus of lizards, with the head and parts of the body covered with thick, highly ornamented bony plates, and hence the generic name *Glyptosaurus* was proposed. The teeth were pleurodont, and in some of the species, at least, short and obtuse. The vertebræ resembled those of *Varanus*, and the species discovered appear to all have had long tails. Four species were described which could readily be distinguished by the form and ornamentation of the cranial plates, and some of them by other characters. *G. sylvestris*, about four feet in length, had thin, nearly flat, cranial shields, with small irregular tubercles, and articular ventral scutes of the same general pattern. *G. nodosus*, about three feet long, had more convex cranial plates and thicker frontals. *G. ocellatus*, at least four feet long, had very thick articular plates, with the tubercles arranged concentrically. A much smaller species, probably two feet in length, and perhaps generically distinct, was indicated by a number of vertebræ, and jaws, and possibly by some scutes. This was called *G. anceps*.

In addition to the reptilian fossils, Professor Marsh exhibited a number of fish remains which were found in the same fresh-water Tertiary basin in Wyoming. Among these were numerous vertebræ and cranial bones, evidently belonging to the genus *Amia*, and indicating two species about the size of the modern *A. calva*. One of these species, which had the pit of the articular depression in the dorsal vertebræ considerably above the centre, was named *Amia Newberrianus*. The other species had vertebræ more nearly like the living *Amia*, but broader, and without the median groove on the lower surface of the centrum. This was called *Amia depressus*. In the same beds with these specimens numerous other fish remains were discovered, which clearly represented the genus *Lepidosteus*, and indicated two species, both having smooth scales, and about the same size as the modern gar-pike. One of these fossil species, which had unusually short vertebræ, was named *Lepidosteus glaber*. The second species, with proportionally longer vertebræ, was called *L. Whitneyi*. All the specimens exhibited belong to the Yale College Museum, and will soon be described in full, by Professor Marsh, in the *American Journal of Science*.

On favorable report of the committee, the following paper was ordered to be published:—

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